Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. **(Currently Amended)** A method of identifying a candidate therapeutic compound for treating [[FSHD]] facioscapulohumeral muscular dystrophy (FSHD), the method comprising,

(a) providing a D4Z4 binding element;

(b) contacting the D4Z4 binding element with a test compound; [[and]]

(c) determining whether the test compound interacts with the D4Z4 binding element[[,]] and

(d) selecting the test compound as a candidate therapeutic compound for treating FSHD if the test compound interacts with the D4Z4 binding element.

~~wherein an interaction between the D4Z4 binding element and the test compound indicates that the test compound is a candidate therapeutic compound.~~

2. **(Original)** The method of claim 1, wherein the D4Z4 binding element is in a cell that expresses a 4q35 gene.

3. **(Currently Amended)** The method of claim 2, ~~further~~ comprising the step of determining the level of expression of a 4q35 gene in the presence of the test compound as compared to a reference representing a level of expression in the absence of the test compound, wherein a decrease in expression of the 4q35 gene indicates that the test compound interacts with the D4Z4 binding element and is a candidate therapeutic compound for treating FSHD.

4. **(Original)** The method of claim 3, wherein the 4q35 gene is FSHD region gene 1 (*FRG1*), FSHD region gene 2 (*FRG2*), or adenine nucleotide translocator-1 gene (*ANT1*).

5. **(Currently amended)** The method of claim [[1]] 2, wherein the cell is a muscle cell.

6. **(Original)** The method of claim 5, wherein the cell is from a subject that has FSHD.

7. **(Original)** The method of claim 1, wherein the interaction is the binding of the test compound to the D4Z4 binding element.

8. - 9. **(Cancelled)**

10. **(Currently Amended)** ~~A method of identifying a candidate compound for treating FSHD, the~~ The method of claim 1, further comprising,

(a) providing a D4Z4 binding element (DBE) and a D4Z4 recognition complex (DRC) under conditions such that the DBE and the DRC can ~~interact~~ bind to each other;

(b) contacting the D4Z4 binding element and DRC or a DRC component with a test compound identified by the method of claim 1; and

(c) determining whether the test compound affects the ~~interaction between~~ binding of the D4Z4 binding element ~~and~~ to the DRC or DRC component,

wherein an increase in ~~the interaction~~ binding between the D4Z4 binding element and the DRC or DRC component in the presence of the test compound indicates that the test compound is a candidate compound.

11. **(Currently amended)** The method of claim [[9]] 10, wherein the DRC component is [[YY1]] YinYang 1 (YY1), ~~HMGB2~~ High Mobility Group Box 2 (HMGB2), or nucleolin.

12. - 20. **(Cancelled)**

21. **(New)** The method of claim 1, wherein the D4Z4 binding element is in a reporter construct comprising a promoter and a reporter gene.

22. **(New)** The method of claim 21, wherein the reporter construct is in a cell, and the method comprises detecting a level of expression of the reporter construct in the presence of the test compound as compared to a reference representing a level of expression in the absence of the test compound, wherein a decrease in expression of the reporter construct indicates that the test compound interacts with the D4Z4 binding element and is a candidate therapeutic compound for treating FSHD.

23. **(New)** The method of claim 21, wherein the reporter construct comprises one, two or six minimal D4Z4 binding elements.